

REMARKS

Reconsideration and removal of the grounds for rejection are respectfully requested.

Claims 1-7 were in the application, claims 1, 2 and 5 have been amended, claim 6 was previously cancelled.

Claim 1 has been amended to clarify the steps of the applicants invention, and to confirm that the filter element is composed of two tubular inserts, the liquid applied to the assembled tubular inserts. [para 0011] Also, the liquid is hardenable so that upon cooling, it stiffens to form a net that stiffens the assembled inserts. [0013] Thus, claim 1 now more clearly describes the steps of the applicants' method invention. Claims 2 and 5 have been amended to better conform to amended claim 1. The rings surrounding the tubular inserts are well illustrated in the drawings

Claims 1, 3, 4 and 7 were rejected as being obvious over Poulsen DK 17840 in view of Kahler, U.S. Patent no. 5,868,889.

The Examiner acknowledged that Poulsen does not disclose a liquid mass applied by one or more nozzles, the nozzles being movable relative to the filter element. In fact, no such nozzles are required, as Poulsen relates to placing a pre-fabricated net on the filter element.(See para. 0003). The Examiner then relies on Kahler to supply the missing elements.

Kahler is distinguishable from the applicants invention. While two nozzles 6a and 6b are shown which may be movable, these are movable relative to a flat sheet, not to an assembly of tubular inserts. Moreover, the applied material does no more than glue the flat sheet to a folded sheet, as shown in Fig. 1b, and so the applied glue cannot form a stiffening net, in and of itself., as is provided by the applicants' invention.

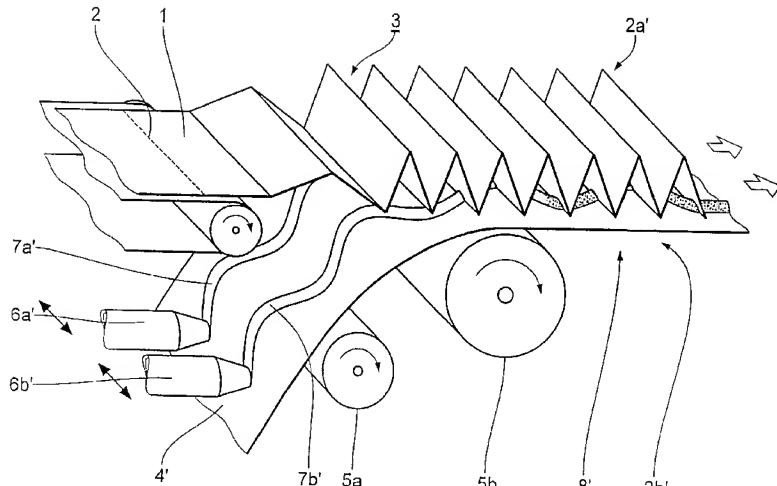


Fig. 1b

Nothing within either of the cited patents would lead one to produce a stiffening net from a hardenable liquid as is provided according to the applicants invention, and claim 1 and the claims depending therefrom are not rendered obvious thereby. In particular, Poulsen describes applying a pre-manufactured net to a filter element, using a hot melt adhesive to hold the net in place, much as the flat sheet is applied in Kahler, and held by the adhesive, so the combination at best may lead one to use a net in place of the sheet...there is nothing which would lead one to avoid entirely the flat sheet as well as the pre-manufactured net, and to instead, form a net in place from a hardenable liquid material, as is done according to the applicants' invention.

In conducting an obviousness analysis, "[a] fact finder should be aware . . . of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 167 L. Ed. 2d 705 (2007). This is because the genius of invention is often a combination of known elements that in hindsight seems preordained. *In re Omeprazole Patent Litig.*, No. MDL 1291, 490 F. Supp. 2d 381, 2007 U.S. Dist. LEXIS 39670, at 400-01 (S.D.N.Y. May 31, 2007) (citation omitted) (quoting *KSR*, 127 S.Ct. at 1742); see also *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed. Cir. 1985), *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 961 (Fed. Cir. 1983) (stating that "virtually every claimed invention is a combination of old elements").

The Court in *KSR* also wrote, "[r]ejections on obviousness grounds cannot be

sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741, 167 L. Ed. 2d 705 (2007) ("To facilitate review, this analysis should be made explicit.") (citing Kahn, 441 F.3d at 988... "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006).

In this case, the reasoning supporting the rejection is faulty. Neither reference uses a hardenable liquid material which itself forms a stiffening net, nor would it be predictable, based on these two patents, that one could in fact produce a stiffening net as is done by the applicant. Poulsen uses a prefabricated net; Kahler uses a flat sheet and other structures for producing a filter element. Neither patent suggests to one skilled in the art the actual forming, *in situ*, of a stiffening net, as is done in the applicants invention.

Moreover, with reference specifically to claim 2, the particular applying steps with movement patterns to form rings and connecting lines would not be obvious to one skilled in the art having Poulsen and Kahler before him. It is pure speculation, and a hindsight reconstruction to presume that one would be led to the applicants invention, particularly where nozzles are movable relative to a tubular filter element and also to each other to provide rings and connecting lines as claimed. Consequently, it is believed that claims 1, 3, 4 and 7 would not be obvious to one skilled in the art, and that claims 1, 3, 4 and 7 are patentable.

Claims 2-4 were rejected as being obvious over Poulsen and Kahler as described above, and further in view of Lippold, U.S. Patent no. 5,066,319 and Spencer, 5,753,071.

The arguments made above relative to the primary and secondary references are equally applicable here. As to claim 2, merely that the "hot melt line" can take another form only means relative to its use between two parts requiring the adhesive to join

them together. Certainly, this does not suggest the use of a hardenable liquid material which forms itself a specific supporting structure, a stiffening net. Generally, adhesives do not provide an independent support structure, only "adhesion". Note that the term "net" according to the Merriam-Webster dictionary means " an open-meshed fabric twisted, knotted, or woven together at regular intervals".

Spencer only discloses stationary adhesive dispensers used to fill various notches. It does not appear that multiple rotations are completed, as once the notch is filled, any additional adhesive dispensed would run out of the notch. No net could or would be formed following Spencer. As the nozzles are fixed in place during operation, having only manually adjustable "goose-neck" supports, no oscillations are possible with the apparatus of Spencer, as required by claim 2.

It is difficult to determine how one would combine the teachings as well as the apparatus of Spencer with Kahler. Kahler applies an adhesive to a sheet which is mated with a folded material, and so no notches are provided. Kahler is essence is directed to creating what would be considered the "intermediate assembly" combining a first medium 34 with a second medium 36 whereas Spencer is directed to bonding end flanges to the intermediate assembly by proving a notch between the two and filling the notch with adhesive. Oscillations would not be appropriate for filling such notches, and as the two steps of the filter manufacture are distinct, one skilled in the art would not be lead to the result proposed according to the examiner. Nor is there even anything to propose moreover the provision of a stiffening net placed over for example, the intermediate assembly. Consequently, the combination would not predictably lead one to the applicants invention.

Lippold is also readily distinguishable. In Lippold, as with the other cited patents, an adhesive is used to join two parts together, that is, to bond the offsets to each other. (See Fig. 5) As is described, the contact region of the offsets 30 is rectangular in Fig. 1a, and "The application of adhesive makes just these areas more rigid..." (col. 4, l. 57-68). See also col. 6, l. 15-17 "The self-hardening layer of adhesive coating 38 is applied to the offsets 30 and their side faces 300 by these rolls."

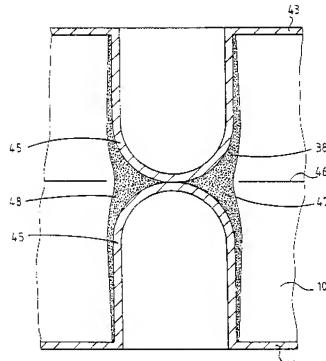


Fig. 5

As to the "net-like or spun" reference, this was only disclosed relative to "the adhesive material ..placed on the offsets 30" as a way to avoid "total closure of the surface area of the filter material 10..." so that the filter characteristics "are only slightly impaired..." (col. 7, l. 57-63)

Consequently, the addition of Lippold does not render claims 1 or 2 obvious, as no stiffening net is created. Lippold relies on the formed offsets to stiffen the filter, with these bonded together by adhesive, possibly discontinuous rather than in a layer.

One skilled in the art reviewing all four references would fail to find a teaching, suggestion or any incentive to provide the stiffening net of the applicants invention, and clearly, there is nothing which would predictably lead one to the results of the applicants invention, requiring nozzles movable relative to a filter as well as to each other for forming in place a stiffening net. Consequently, claims 2-4 are not rendered obvious by the combination.

Claim 5/1 was rejected over Poulsen, Kahler and Spencer, each of which was discussed above and the arguments are incorporated here. Adams was additionally cited as disclosing moving a material beneath nozzles to apply adhesive in a desired pattern, it being admitted that Adams does not disclose the detailed pattern characteristics as required by claim 5/1.

It should be understood that "moving ANY material beneath adhesive nozzles would produce patterns" is itself irrelevant to the claim. A pattern is not what is claimed but a stiffening net which must meet the structural requirements for stiffening a filter. The fact that any pattern could be generated, for gluing two items together does not lead one to producing the particular net of the applicants invention, nor certainly would it lead one to believe that the combination would lead predictable to a filter stiffened by a formed in place stiffening net. None of the references give any assurance that such a net could be formed. Consequently, claim 5/1 is believed to be patentable.

Claim 5/2 was rejected over all of Poulsen, Kahler, Lippold, Spencer and Adams. It is believed that the discussion above as to each cited patent are equally applicable here. Moreover, it is difficult to see how one skilled in the art could pick and choose among the five cited patents and only pick out those features which allegedly lead to obviousness while ignoring other parts. For example, Lippold uses offsets for stiffening, and touts their advantages. How or why would one skilled in the art ignore that feature, and produce a filter without such offsets?

None of the references teach, suggest, imply or predictably lead one to the invention of claim 5/2 and claim 5/2 is patentable over the cited art.

Based on the above amendments and remarks, reconsideration and allowance of the application are respectfully requested. However, should the examiner believe that direct contact with the applicant's attorney is necessary to advance the prosecution of the application, the examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

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